L 34076-66

ACC NR: AP6012908

Zn - 1.0×10^{-6}%, In - 7.2×10^{-6}%, As - 8.2×10^{-5}%, Te - 3.6×10^{-5}%, Sn - 1.9×10^{-5}%. Orig. art. has: 1 figure.

SUB CODE: 07 / SUBM DATE: 01Feb65 / ORIG REF: 005

Card 2/2

GIL'BERG, I.

Giant of the Vakhsh River. Znan. sila 36 no. 2:1 F '61. (MIRA 14:5)

(Nurek Hydroelectric Power Station)

AUTHOR: Gil'berg, L. 4-58-6-27/37

TITLE: Going to Meet the 21st Century - Man Controls Weather (Navstrechu XXI veku - Chelovek upravlyayet pogodoy)

PERIODICAL: Znaniye - sila, 1958, Nr 6, p 44 (USSR)

ABSTRACT: This article describes the efforts of the USSR, the US, Japan, Spain and other countries to control the weather.

1. Weather--Control 2. Meteorology--Applications

Card 1/1

84893

17.1250 3412, 3112, 3512

S/004/60/000/010/003/008
A005/A001

AUTHOR: Gil'berg, I.

TITLE: Before the Man-Flight

PERIODICAL: Znaniye - Sila, 1960, No. 10, pp. 6-8

TEXT: The author considers commonly wellknown facts in connection with accelerations affecting the human body in space flight from starting to re-entering and landing. The article is subdivided into the following single topics: 1) Velocity ? No, accelerations; 2) What is the load factor ?; 3) 35 g; 4) Load factor equal to zero. - In elementary form the difference between the physical conceptions of velocity and acceleration is explained and it is noted that the effect of accelerative forces can be considered as multiplied weight of the body under acceleration or deceleration; in limiting case, the zero-weight corresponds to the state of weightlessness when the acceleration is equal and opposite to gravitation. The acceleration is presented as a multiple or fraction of the gravity of the Earth, and it is equal to the load factor. - The physiological consequences of the accelerations are noted, to which the pilots will be subjected; the known results of physiological tests are briefly presented. - The known experimental units are described used commonly for producing multiplied gravity affecting the human body: the centrifuge with cabin,

Card 1/2

S/004/60/000/004/002/003
A166/A029

10.9310

AUTHOR: Gil'bert, L.

TITLE: Vertical-Take-Off Planes

PERIODICAL: Znaniye-sila, 1960, No. 4, pp. 34 - 36

TEXT: The author reviews the various types of vertical take-off planes, such as the British Rotodyne, the Convair XFY-1, the Hiller X-18 "Propelloplane", the Doak 16, the French Atar Volant, the Ryan X-13 and the Coleopter. In 1936 the Soviet helicopter designer I.P. Bratukhin directed the designing of the ЦАГИ 11 ЭА (TsAGI 11 EA), a combined plane-helicopter with one bearing screw, a wing and two airplane-type tractor screws. The "Pchelka" АН-14 (AN-14) plane, designed by O.K. Antonov, has double extensible slit flaps to channel the slipstream from the propeller downwards, thus giving the plane a very short take-off and landing run. The Soviet experimental "Turbolet" was designed by A.N. Rafaelyants and V. N. Matveyev. The plane consists of a turbojet engine mounted vertically on a metal frame. The pilot's cabin and fuel tank are mounted alongside. In addition to gas controls, the "Turbolet" has jet controls consisting of jet nozzles on the ends of long protruding brackets which are fed with compressed air from the

Card 1/2

87225
S/004/60/000/005/006/007
A166/A026

26.1110

AUTHOR: Gil'barg, I.

TITLE: IL-18

PERIODICAL: Znaniye-Sila, 1960, No. 5, pp. 44-45.

TEXT: Information is given on the turboprop IL-18 passenger plane designed by Vladimir Il'yich Ilyushin. The plane is about 36 meters long and has a span of more than 37 meters. It is powered by 4 turboprop engines developing a total thrust of 16,000 equivalent HP. The plane cruises at speeds up to 650 km/h and has a range of 5,000 km with reserve fuel. The take-off run is 800-1,200 m and the landing distance 600-700 m. Take-off weight is 59 tons. The plane is designed for maximum day and night-flying safety at temperatures of from -60 to +60° C in all-weather conditions. It is capable of flying easily on 3 or even 2 engines and is fitted with radar-fix equipment and excellent de-icing and fire-fighting apparatus. The passenger accomodation is for 65 first-class or tourist passengers plus 8 sleeping bunks. This arrangement can be rapidly converted at the airport into an 83- or 89-seater. There is also an alternative lay-out for a 111-seater. Airconditioning to a constant 20°C and normal humidity is provided.

Card 1/2

87225

IL-18

3/004/60/000/005/006/007
A,66/A026

At 8,000 m the pressure is equivalent to the pressure at 1,500 meters. At altitudes up to 5,000 m the pressure is the same as at ground level. There are 3 photos.

X

Card 2/2

83998

10100 1512 only

S/004/60/000/007/003/003
A104/A029

AUTHORS: Gil'berg, L.; Fradkin, I.

TITLE: The Design of KA-10 (KA-10) 4

PERIODICAL: Znaniye-Sila, 1960, 35 No. 7, p. 54

TEXT: In No. 4, 1959, of this periodical the article "Soviet Gyroplanes" was published. Many readers wrote to the editor asking for details on the design and operation of Ka-10, the smallest Soviet helicopter designed by Nikolay Il'ich Kamov. These requests are complied with in this article. Ka-10 is a single-seat coaxial helicopter with two carrying propellers which are placed above each other and rotate in opposite directions thus ensuring the stability of the plane. Their diameter is 6.13 m. The fuselage consists of thin-walled welded steel tubes and there is no plating, no covered cockpit and no stabilizer. There is a vertical bearing at the tail and the carrier column is attached to the fuselage. The propellers are driven by an АИ-4Г (AI-4G) motorcycle engine of 55 hp at 4,500 rpm. Beneath the fuselage are two rubberized inflated balloons which ensure smooth landing on land and water. The helicopter can remain airborne for two hours, its flying range is 195 km and its maximum speed 116 km/h.

Card 1/2

83998

S/004/60/000/007/003/003
A104/A029

The Design of KA-10 (KA-10)

One of the main features of its driving system is the automatic autogyro control designed by B.N. Yur'yev in 1911 (Photograph on Page 54). Figure 1 shows the propeller hub and, above, the vertical ascent of the helicopter, as well as the propeller at an angle to the vertical climb. The helicopter requires a minimum of landing space and during a flying exhibition in Tushino landed on the platform of a truck. There are 2 figures.

Card 2/2

21763

S/004/61/000/007/003/003
D205/D306

3,2100

AUTHOR: Gil'berg, L.

TITLE: Return to earth

PERIODICAL: Znaniye-sila, no. 7, 1961, 10-13

TEXT: The article reviews the equipment and techniques in standard use for emergency escape from high-speed jet planes, with especial reference to ejection seat design, controlled descent and the physiological effects of ejection and exposure to high altitudes on the pilot. The author explains how high-altitude suits and compensating suits help the pilot to withstand these stresses and survive a bail-out at altitudes as great as 12 km. All the information is based on Western sources. The author mentions prototype capsules which consist in effect of the whole forward portion of the fuselage together with the cabin, the entire unit being detached from the rest of the plane in an emergency to descend by parachute. A development of this method is used for landing astronauts from satellites. Emergency escape

Card 1/2

21763
S/004/61/000/007/003/003
D205/D306

Return to earth

cabins for astronauts have also been developed. The pilot's cabin is equipped with a powerful rocket motor which can catapult the cabin to a height from which it can descend by parachute, should any mishap occur during launching. The motor is powerful enough to eject the capsule from the carrier-rocket even when the main rocket engines are functioning during the active phase of flight.

Card 2/2

GIL'BERG, L.

New developments in aeronautics. Znan.sila 36 no.8:12-15 Ag '61. (MIRA 14:8)

(Aeronautics)

GIL'BERG, L.

From the Baykonur "cosmodrome" and from Cape Canaveral. Znan.-sila 38 no.7 24 Jl '63. (MIRA 16:10)

GILBERG, L.

Meeting in the orbit. Pt. 2. Aviats kosmonavt 6 no. 7:8-9 '64.

GIL'BERG, L.A.

SALLI, A.; MIRKIN, I.L., professor [translator]; GIL'BERG, L.A., redaktor; GLAZKIKH, N.N., tekhnicheskiy redaktor.

[Metallic creep and heatresistant alloys] Pelzuchest' metallov i zharoprochnye splavy. Perevod s angliiskogo i nauchnaia red. I.L.Mirkina. Moskva, Gos. izd-vo oboronnoi promyshlennosti, 1953. 290 p. (MLRA 7:8)

(Creep of metals) (Alloys)

RODIN, A.I.; GIL'BERG, L.A., redaktor; CHISTYAKOVA, A.V., tekhnicheskiy redaktor.

[Silver soldering in the flame of a gas torch] Paika serebrianymi pripoiami v plameni gazovoi gorelki. Moskva, Gos. izd-vo oboronnoi promyshlennosti, 1954. 53 p. (MLRA 8:2)
(Solder and soldering)

YEVTYUKHOV, K.S., GIL'BERG, L.A., redaktor; CHISTYAKOV, A.V., tekhnicheskiy redaktor.

[Safety measures in transportation inside the plant] Tekhnika bezopasnosti vnutrizavodskogo transporta. Izd-.3-e ispr. i dop. Moskva, Gos.izd-vo oboronnoi promyshl.,1955. 227 p. (MLRA 8:9)
(Transportation--Safety measures) (Industrial safety)

GIL'BERG, L.A.

TIKHOMIROV, Vladimir Ignat'yevich; TARASEVICH, R.M., dotsent, retsenzent; LAPSHIN A.A., dotsent, retsenzent; NOVITSKIY, V.F., inzhener, retsenzent; GIL'BERG, L.A., redaktor; KUZNETSOVA, A.G., izdatel'skiy redaktor; LEBEDEVA, L.A., tekhnicheskiy redaktor

[Organization and planning in aircraft plants] Organizatsiia i planirovanie samoletostroitel'nogo predpriiatiia. Moskva, Gos. izd-vo obor. promyshl., 1957. 610 p. (MIRA 10:11)
(Airplane industry)

GIL'BERG, Lev Abramovich; IVANOV, S.M., red.; RAKITIN, I.T., tekhn. red.

[On an air cushion] Na vozdushnoi podushke. Moskva, Izd-vo "Znanie," 1963. 35 p. (Novoe v zhizni, nauke, tekhnike. IV Seriia: Tekhnika, no.13) (MIRA 16:8)

(Ground-effect machines)

IZAKSON, Aleksandr Mikhaylovich; MIL', M.L., doktor tekhn. nauk, retsenzent; STRIZHEVSKIY, S.Ya., kand. tekhn. nauk, dots., retsenzent; SHAVROV, V.B., kand. tekhn. nauk, retsenzent; GIL'BERG, L.A., red.

[Soviet helicopter industry] Sovetskoe vertoletostroenie. Moskva, Mashinostroenie, 1964. 310 p. (MIRA 17:6)

FINKEL'SHTEYN, G.E.; VAYSMAN, L.M.; LANTSETER, Ye.M.; Prinimali uchastiye: GIL'BERG, V.B., inzh.; BELEN'KIY, D.S., inzh.; IVANOVA, V.A., inzh.; PEDOSENKO, V.A., inzh.; YAKOVENKO, Yu.B., inzh.

Device for technological control of the content of current-conducting inclusions in condenser paper. Bum. i der. prom. no.4:6-12 O-D '63. (MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut bumazhnoy promyshlennosti.

ACC NR: AP6016128 SOURCE CODE: UR/0289/66/000/001/0138/0139

AUTHOR: Artyukhin, P. I.; Gil'bert, E. N. Pronin, V. A.

ORG: Institute of Inorganic Chemistry, Siberian Branch of the AN SSSR, Novosibirsk (Institut neorganicheskoy khimii, Sibirskogo otdeleniya AN SSSR)

TITLE: Activation determination of impurities in gallium

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1966, 138-139

TOPIC TAGS: gallium, quantitative analysis, neutron irradiation, CHEMICAL PURITY

ABSTRACT: A sample of gallium weighing 100 mg was placed in a quartz ampoule which was then sealed and irradiated with a stream of slow neutrons, 1.8×10^{13} N/cm^2-sec, for 8 hours. After irradiation, the gallium together with the carriers (about 10^{-5} grams of each element) was dissolved in aqua regia and the solution was evaporated to dryness. The precipitate formed was dissolved in 10 ml concentrated hydrochloric acid. The gallium was extracted three times from the solution obtained. The aqueous phase containing the impurity elements was evaporated three times in a mixture of nitric and hydrofluoric acids, almost to dryness.

Card 1/2 UDC: 543.53

ACC NR: AP6016128

The precipitate was dissolved in a small amount (5-10 drops) of 6 N HF and the solution was introduced into a Teflon column filled with Dowex-1 anion exchange resin in the F'-form. Determinations were made for the following metals: cobalt, copper, indium, zinc, arsenic, tellurium, and tin. The analytical results are shown in a table. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07 / SUBM DATE: 22May65

Card 2/2

GILBERT, A., ing.; RUSMANICA, I., ing.

Hydroelectric power construction works. Energetica Rum 12 no. 8: 435-445 Ag '64.

1. Director General of the Enterprise of Hydroelectric Power Construction (for Gilbert).

KURANT, P. and GILBERT, D.

Metody Matematicheskoi Fiziki (Tom Vtoroi) (Methods of Mathematical Physics-Vol. 2), 544 p., Moscow and Leningrad, 1951.

GIL'BERT, E.N.; PRONIN, V.A.; ARTYUKHIN, P.I.; VALOV, P.M.

Extraction separation of carrier-free Co^{57} from an irradiated target. Radiokhimiia 7 no.3:358-359 '65. (MIRA 18:7)

L 21136-66

ACC NR: AP5026986 SOURCE CODE: UR/0020/65/164/005/1044/1045

AUTHOR: Artyukhin, P. I.; ~~Gil'bert, E. E.~~; Peshchevitskiy, B. I.; Pronin, V. A.; Nikolayev, A. V. (Corresponding member AN SSSR)

ORG: Institute of Inorganic Chemistry, Siberian Department, Academy of Sciences, SSSR (Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Investigation of the extracting properties of 2,2'-dichlorodiethyl ether (Chlorex)

SOURCE: AN SSSR. Doklady, v. 164, no. 5, 1965, 1044-1045

TOPIC TAGS: extraction, separation, ion

ABSTRACT: In the course of searching for new extracting agents, it appeared profitable to investigate the properties of β,β'-dichlorodiethyl ether (Chlorex). It was expected to behave differently from diethyl ether, because of the presence of two chlorine atoms in the molecule. It was found to extract Sb(V) and Fe(III) well, Sn(IV), Te(IV), In(III) slightly, and Zn(II), Cu(II), Co(II), Mn(II), Cr(III), As(V), and Ag(I) practically not at all. The partition coefficients are given in tabular form. Orig. art. has: 1 table and 1 figure. [VS]

SUB CODE: OC, GC / SUBM DATE: 10Apr65/ ORIG REF: 001/ OTH REF: 003/

ATD PRESS: 4123

Card 1/1 UDC: 542.61

GIL'BERT, G.P., kand.med.nauk

Late results of treating typical radius fractures. Ortop., travm. i protez. no.1:23-30'63. (MIRA 16:10)

1. Iz Sverdlovskogo instituta travmatologii i ortopedii (dir. kand.med. nauk Z.P.Lubegina).

TOROCHKOV, Ivan Mikhaylovich; SINEL'NIKOV, Aleksandr Vasil'yevich; MATSKIN, Leonid Arkad'yevich; SLUTSKIY, Lev Borisovich; GIL'BERT, Stepan Fomich; ALEKSANDROV, Adol'f Moritsovich; RASTOVA, G.V., vedushchiy red.; FEDOTOVA, I.G., tekhn.red.

[Automatic filling of petroleum products tank trucks] Avtomaticheskii naliv nefteproduktov v avtomobil'nye tsisterny. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. 1960. 83 p. (MIRA 14:3)

(Tank trucks)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000515020018-9"

ACC NR: AP6033662 SOURCE CODE: [illegible]

AUTHOR: Gilberman, A. Ya. (Engineer); Polodyk, A. M. (Engineer); Yakovleva, A. A. (Engineer)

ORG: none

TITLE: Silicon photodetectors for pulsed narrow-slot illumination

SOURCE: Priborostroyeniye, no. 10, 1966, [illegible]

TOPIC TAGS: analog digital converter, silicon optic material, semiconductor [illegible], silicon semiconductor, PHOTOELECTRIC DETECTION

ABSTRACT: A diffused silicon photodetector designed to operate with pulsed narrow-slot illumination is described. The detector (see Fig. 1) is built in a ca[illegible]

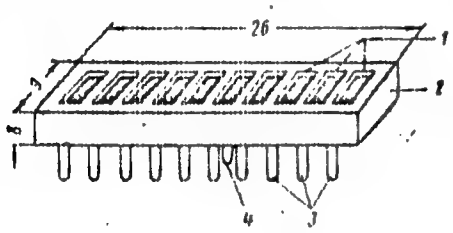

Fig. 1. Silicon cassette photodet[illegible]

1 - Photodetectors; [illegible] - cassette; [illegible] pins; 4 - common output.

Card 1/2 UDC: [illegible]

ACC NR: AP6033062

configuration designed for use in analog-to-digital converters. The [illegible] of the detector are 4.5 x 1.5 x 0.4 mm. Depending on the application, the assembly may contain any number of detectors. The detector spectrum is similar to that of the xenon pulse lamp normally used in analog-to-digital converters. [illegible] of the [illegible] parameters are: operating temperature, 100° with amplitude changes not greater than 10% from the value measured at 20°C; experimental values of capacitance [illegible] of the p-n junction (at zero bias), (1.5—7) x 10[illegible] and [illegible] (1—3) x 10[illegible] cm, respectively; photoconductive time delay for a load of 1 kohm (5—8) x 10^{-6} sec; a threshold sensitivity, 10^{-8} lm. The large working surface and uniform sensitivity (within 3%) of the photodetector simplify adjustment and alignment of the optical system. The device can also be used in a number of other computer circuits. Orig. art. has: 4 figures.

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 004/ ATD PRESS: 5100

112-2-4512

TRANSLATION FROM: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 2, p. 292 (USSR)

AUTHORS: Nomokonov, V. P., Gil'bershteyn, P. G., Umnov, V. F.

TITLE: CC-26-51Д Station Amplifiers for High Frequency Seismic Geophysical Exploration (Usiliteli stantsii SS-26-51 D dlya vysokochastotnoy seysmorazvedki)

PERIODICAL: V Sb.: Razvedochnaya i promyslovaya geofizika. Nr 15, Moscow, Gostoptekhizdat, 1956, pp. 81-83.

ABSTRACT: Amplifiers of the widely used CC-26-51Д stations can be used for high frequency (from 60 to 120 cps and higher) seismic geophysical exploration on the condition that the filters and output stages are changed. The converted filter and output stage circuits and their frequency characteristics are given. Low frequency attenuation amounts to 32 to 24 db (instead of 15 to 17 db for stock amplifiers). The redesigned amplifiers can be used even in the 30 to 50 cps frequency range.

V.M.L.

Card 1/1

GIL'BERSHTEYN, P.G.; UMNOV, V.F.

Transportable seismic station for studying small depths in regions with difficult access. Trudy MGRI 36:96-102 '59. (MIRA 15:5)
(Seismic prospecting)

GOLBERSHTEYN, P. G.

PHASE I BOOK EXPLOITATION SOV/4613

Geofizicheskaya razvedka, vyp. 2 (Geophysical Survey No. 2) M skow, Gostoptekhizdat, 1960. 124 p. (Series: Obmen protivodstvennym opytom) 4,000 copies printed.

Sponsoring Agencies Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov RSFSR; Upravleniye geofizicheskikh rabot trest Geofizneftegazrazvedka.

Ed.: O.K. Glotov; Executive Ed.: S.M. Yungane; Tech. Ed.: L.V. Semina.

PURPOSE: This book is intended for engineers and technicians working in geology and geophysics.

COVERAGE: This is a collection of 11 articles on geophysical methods and techniques of surveying mineral deposits. The authors discuss problems in processing and interpreting the results of surface and underground gravimetric surveys and seismic logging. New types of geophysical instruments and equipment, the AFI-2 and AFI-U amplitude-phase meters, the small portable UP-60 ultrasonic seismoscope, two-dimensional perforated sheet material for modeling seismic waves, a pantograph, and a modified IZh-4 inclinometer are described in detail. No personalities are mentioned. References accompany individual articles.

AVAILABLE: Library of Congress

JA/dwm/gmp
12-19-60

Card 3/3

GIL'BERSHTEYN, P.G.; GURVICH, I.I.

Using perforated materials for two-dimensional seismic modeling.
Izv.vys.ucheb.zav.; geol.i razv. 3 no.1:139-156 Ja '60.
(MIRA 13:7)

1. Moskovskiy geologorazvedochnyy institut im.S.Ordzhonikidze i Trest "Geofizneftesuglerazvedka".
(Geological modeling) (Seismic waves)

GIL'BERSHTEYN, P.G.; KOLOSKOV, I.A.

Small-size field seismoscope for measuring the speed of elastic waves. Geofiz. razved. no.2:87-99 '60. (MIRA 13:12)
(Seismometers)

GIL'BERSHTEYN, P.G.

Designing perforated models of seismic media. Geofiz. razved. no.2: 100-119 '60. (MIRA 13:12)

(Seismic waves)

GURVICH, I.I.; GIL'BERSHTEYN, P.G.

Determination of the absorption constants of seismic waves. Geofiz. razved. no.4:3-14 '61. (MIRA 14:7)
(Seismic prospecting)

GIL'BERSHTEYN, P.G.

Calculation of the propagation velocity of a longitudinal wave in a seismic model with holes. Geofiz. razved. no.8:3-17 '62. (MIRA 15:7)

(Seismic prospecting—Electromechanical analogies)

S/169/63/000/002/097/127
D263/D307

AUTHORS: Gil'pershteyn, E. G. and Gurvich, I. I.

TITLE: The velocities of elastic waves in perforated materials for seismic modeling

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 20, abstract 2D122 (Izv. vysch. uchebn. zavedeniy. Geol. i razvedka, 1962, no. 5, 116-131)

TEXT: A description is given of experiments aimed at a study of the velocities of elastic waves in duralumin, plexiglass and brass, used for seismic ultrasound modeling. The main results of the investigation are as follows: The velocity of longitudinal waves v_p in perforated sheets varies linearly with the number of holes, Q, and may be calculated from a quoted empirical formula. The latter must include a parameter φ_p, determined experimentally for the materials tested. The dependence of transverse wave velocities v_s on

Card 1/3

the extent of perforation is also linear in certain range of Q's; this is less clearly pronounced than for longitudinal waves. Calculation of the velocity V_s should be carried out with the aid of experimentally obtained graphs. The velocity ratio v_p/v_s in the perforated materials studied is found to vary from 1.77 to 1.60. In duralumin V_p/V_s is a linearly decreasing function of Q. In plexiglass, the decreasing character of the relation of V_p/V_s with Q appears from Q > 0.2. Perforated plates submerged in water are characterized by higher velocities than plates surrounded by air. The Dependence $V_p(Q)$ determined for this case demonstrates the possibility of applying perforated plates for simulating thin layers with directional elastic properties in the solution of three-dimensional problems. Anisotropy of v_p is clearly shown in materials with a square grid of apertures, and increases with increasing number of holes. A definite value of Q exists below which the anisotropy is practically not observed. Application of many types of

grids allows simulation of either isotropic or anisotropic media. It was not possible to find dispersion of the velocity V_p between 30 and 115 kc/s in plexiglass and between 25 and 250 kc/s in duralumin. The authors observed a non-parallelism of phase hodographs, caused by selective absorption of high frequencies, as a result of which the apparent velocity of later phases appear somewhat lower (by 2 - 3%). The velocity of surface waves depends on Q. This relationship is shown less distinctly than for longitudinal waves. [Abstracter's note: Complete translation.]

GIL'BERSHTEYN, P.G.; GURVICH, I.I.

Normal reflection of lateral waves in perforated materials for seismic modeling. Geofiz. razved. no.9:3-7 '62. (MIRA 15:9)
(Seismic prospecting--Models)

GIL'BERSHTEYN, P.G.; POCHTOVIK, V.S.

Use of porous materials for making volumetric seismic models with controlled properties. Geofiz. razved. no.9:8-27 '62. (MIRA 15:9)

(Seismic prospecting--Models)

GIL'BERSHTEYN, P.G.; GURVICH, I.I.

Use of two-dimensional models in studying front waves from strata of varying thickness. Izv. AN SSSR. Ser. geofiz. no.11:1605-1619 N '63. (MIRA 16:12)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

GIL'BERSHTEYN, P.G.

Reflection of longitudinal waves from rectilinear boundaries in perforated plates in cases of oblique incidence. Geofiz. razved. no.12:3-11 '63. (MIRA 16:11)

ACCESSION NR: AP4005602 S/0286/63/000/022/0054/0055

AUTHOR: Gil'bershteyn, P. G.; Alferov, V. V.; Vasil'yev, A. M.; Posternak, Ya. I.; Levin, L. B.; Umnov, V. F.; Koloskov, I. A.

TITLE: Method for computing arrival time and phase of seismic waves for electronic digital computer processing. Class 42, no. 158732

SOURCE: Byul. izobret. i tovarn. znakov, no. 22, 1963, 54-55

TOPIC TAGS: seismology, seismic wave, automatic data processing, data processing, seismic data, computer analysis, magnetic recording, electronic computation seismic data, linear interpolation, arrival time, phase

ABSTRACT: A method is described for computing arrival time and phase of seismic waves for processing time into a digital computer from multichannel correlated seismograms obtained by the oscillographic method or by an inked graph. Variable tape transport mechanism speeds are minimized as a readout accuracy factor by employing magnetic material to make the strokes marking both time and the arrival times and phases. These strokes are read out by magnetic heads, the number of pulses corresponding to the strokes for the time marks is summed, and with the

Card 1/2

ACCESSION NR: AP4005602

entrance of a pulse for the arrival or phase of a wave a linear interpolation is made in each of the channels of the distance between the two closest time mark pulses.

SUBMITTED: 11Sep62 DATE ACQ: 03Jan64 ENCL: 00

SUB CODE: AS NO REF SOV: 000 OTHER: 000

Card 2/2

GURVICH, I.I.;GIL'BERGHTEYN, P.G.

Studying seismic waves reflected from under a strata with increased wave-propagation velocity using two-dimensional models. Geofiz. razv. no. 15:3-19 '64. (MIRA 17:7)

[illegible]

[illegible] for introducing seismic information into a digital computer. [illegible] 64-74 '64.

(MIRA 18:2)

L 47138-66 EWT(1) GD/GW

ACC NR: AT6031368 SOURCE CODE: UR/0000/66/000/000/0034/0041

AUTHOR: Vasil'yev, Yu. F.; Gil'bershteyn, P. G.; Gurvich, I. I.; Ivakin, B. N.

ORG: none

TITLE: Perforated materials for two-dimensional seismic modeling

SOURCE: AN SSSR. Institut fiziki Zemli. Geoakustika; ispol'zovaniye zvuka i ul'trazvuka v seysmologii, seysmorazvedke i gornom dele (Geoacoustics; the use of sound and ultrasound in seismology, seismic prospecting, and mining). Moscow, Izd-vo Nauka, 1966, 34-41

TOPIC TAGS: seismic modeling, perforated material, seismic wave, ~~model~~, elastic wave, ~~propagation~~ wave propagation

ABSTRACT: A description is given of the use of perforated materials for controlling density and elasticity in ultrasonic seismic-wave modeling experiments conducted in the Institute of Physics of the Earth of the Academy of Sciences USSR and the Moscow Geological Prospecting Institute. Parametric measurements were made on two-dimensional sheets of duralum, brass, iron, and plexiglass containing perforations (d = 1—10 mm) arranged in triangular, hexagonal, and rectangular grids. The ratio of the dominant wavelength to the distance (which ranged from 2.5 to 20 mm) between the perforations varied from 4 to 50 depending upon the type of sheet and the nature of the experiment. Experiments were conducted to establish: 1) the possibility of recording regular

Card 1/2

L 47138-66
ACC NR: AT6031368

longitudinal and shear waves, 2) the relationship between the effective elastic-wave propagation velocities and the size, number, and shape of the perforations, 3) the dispersion velocities, 4) the absorption of the elastic-wave energy, and 5) the possible appearance of velocity anisotropy and absorption in sheets with different perforation patterns. The results of experiments showed that under certain conditions regular longitudinal, shear, and surface waves arise in perforated materials and propagate with characteristic velocities almost without dispersion or attenuation as determined by the coefficient of effective absorption. Thus, perforated materials under specific conditions behave like a macrohomogeneous, nonideal, elastic medium to which can be imparted isotropic, anisotropic, or smoothly changing properties. The applicability of these materials in seismic modeling is determined by the appropriateness of the elastic, density, and absorbing properties of the rock to the analogous parameters, which can be controlled in perforated sheets by changing the perforation pattern. The accuracy of reproducing properties in these models is very high, reaching 1—2% in the case of velocity. Orig. art. has: 4 figures. [DM]

SUB CODE: 08/ SUBM DATE: 28Mar66/ ORIG REF: 007/ ATD PRESS: 5088

Card 2/2 afs

L 47135-66 EWT(1)/EWT(m)/EWP(j)/T IJP(c) GD/RM/GW

ACC NR: AT6031371 SOURCE CODE: UR/0000/66/000/000/0062/0064

AUTHOR: Gil'bershteyn, P. G.; Grechishnikov, G. A.; Nomokonov, V. P.

ORG: none

36
B+1

TITLE: Construction of wide-band transducers for seismic modeling

SOURCE: AN SSSR. Institut fiziki Zemli. Geoakustika; ispol'zovaniye zvuka i ul'trazvuka v seysmologii, seysmorazvedke i gornom dele (Geoacoustics; the use of sound and ultrasound in seismology, seismic prospecting, and mining). Moscow, Izd-vo Nauka, 1966, 62-64

TOPIC TAGS: acoustic detector, acoustic receiver, seismic modeling, seismology, wide band transducer

ABSTRACT: A new type wide-band receiver to be used in seismic modeling is described. It consists of Rochelle salt plates of different thickness and height, each with its own natural frequency, which form a receiver with wider band-frequency characteristics when stacked together. The damping of natural frequencies was accomplished by covering the stack with a 1—2-mm thick layer of transparent epoxy resin. The receiver, shown in Fig. 1, requires no clamp, as the contact is established by a thin layer of vaseline. A pulse transmitted through a brass sheet consisted of a single vibration with an apparent frequency of 100 kcps and a pulse duration of 16 μsec. Compared to the older-type receivers, the total pulse duration of the new

Card 1/2

L 47135-66

ACC NR: AT6031371

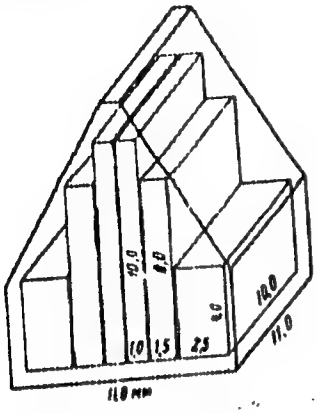

Fig. 1. Sketch of the new receiver (dimensions are given in mm).

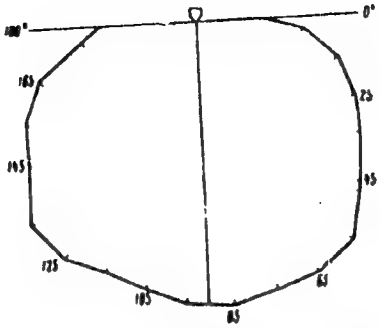

Fig. 2. Direction pattern of the new receiver.

detector at the same apparent period was shortened by 50%, and the resolution was improved accordingly. Use of a filter with a cutoff frequency above 80 kcps decreased the apparent frequency to 70 kcps without changing the shape of the signal. Fig. 2 shows the direction pattern of the receiver. Orig. art. has: 3 figures. [CS]

SUB CODE: 08 / SUBM DATE: 28Mar66/ ATD PRESS: 5088

Card 2/2

ACC NR: AP7001909 SOURCE CODE: UR/0387/66/000/012/0011/0027

AUTHOR: Gil'ber shteyn, P. G.; Gurvich, I. I.; Pochtovik, V. S.

ORG: Moscow Geological Prospecting Institute im. S. Ordzhonikidze (Moskovskiy geologorazvedochnyy institut); Geofiznefteuglerazvedka Trust (Trest Geofiznefteuglerazvedka)

TITLE: Model investigations of a two-dimensional seismic waveguide with sharp boundaries

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 12, 1966, 11-27

TOPIC TAGS: seismic modeling, interference wave, ultrasonic seismoscope, seismologic instrument

ABSTRACT: Two-dimensional seismic waveguide model investigations were conducted in which the kinematic and amplitude characteristics of interference waves were examined in relation to the thickness of the layer. Duralum models (1000 x 500 x 2 mm) were used. A perforated band with a triangular network of apertures served as the waveguide layer. Rochelle salt crystals (6 x 6 x 6 mm) acted as receivers, while an ultrasonic seismoscope recorded both narrow (60 kc) and broad (600 kc) bands. The effect of changing the location of the source relative to the layer on the amplitude of the interference waves both within the layer and in the surrounding medium was studied. In the case of a solid low-velocity layer a very

 UDC: 534.21:550.311

ACC NR: AP7001909

intense interference was observed when the source was inside the layer. When the source was outside the layer, a surface wave was generated whose amplitude diminished rapidly with distance from the layer boundary. Orig. art. has: 12 figures and 2 formulas.

SUB CODE: 08/ SUBM DATE: 22Mar66/ ORIG REF: 012/ OTH REF: 007
ATD PRESS: 5111

Card 2/2

L 05202-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP7000761 SOURCE CODE: UR/0289/66/000/001/0088/0090

23

B

AUTHOR: Pronin, V. A., Gil'bert, E. N. and Artyukhin, P. I.

ORG: Institute of Inorganic Chemistry, Siberian Department, AN USSR, Novosibirsk

TITLE: Determination of impurities in thallium by the neutron activation method

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1966, 88-90

TOPIC TAGS: thallium, sorption, gamma spectrometer

ABSTRACT: The gamma-spectrometry method was combined with the rapid chemical separation of impurities to determine Sb, Ga, Fe, In, Zn, Cu, Co, As, Te, and Sn in thallium. The authorss' study of the extraction equilibria in the system beta, beta'-dichlorodiethyl ether ('khloreks')-water solutions of hydrochloric acid for a large number of elements indicated that Tl can be removed by extraction with khloreks from 3N HCl, while Sb, Ga, and Fe can be separated from the remaining micro-impurities by extraction from 9-10N HCL. The Co, Cu, In, Zn, As, Tl, and Sn impurity elements can be divided into two groups on the bases of different sorption capacity of fluoride complexes on an anionite. Sn, As, and Te, with a concentration of 5-3 N HF are sorbed on the anionite whereas Co, Cu, In, and Zn freely pass through the column. Nuclear-physical characteristics of the elements Co, In, Zn and Cu as well as Sb, Ga, and Fe, permit their identification without further chemical separation. Orig. art. has: 2 figures and 2 tables. [JPRS: 37,177]

Card 1/2 SUB CODE: 07/SUBM DATE: 26Apr65/ORIG REF: 005 UDC: 543.53

0923 1939

GIL'BIKH, G.S., inzh.; MUKOSEYEV, Yu.L., prof.; NIKULIN, Yu.P., inzh.; BAK, S.I., inzh.

Electric power supply of oil well drilling rigs. Prom. energ. 20 no.10:28-34 O '65. (MIRA 18:10)

1. Kazanskoye otdeleniye Gosudarstvennogo proektnogo instituta "Elektroprovekt" (for Gil'bikh). 2. Gor'kovskiy politekhnicheskiy institut (for Mukoseyev). 3. Trest Tuymazaburneft', Bashkirskaya SSR (for Nikulin). 4. Institut Bashneftegprovekt (for Bak).

GIL'BO, E.Z., YELGAZINA, A.Ya.

Caucasian recurrent typhus. [with summary in French]. Zhur.nevr. i psikh. 58 no.2:177-180. '58 (MIRA 11:5)

1. Stavropol'skaya psikhonevrologicheskaya bol'nitsa (glavnyy vrach A. Ya. Dorsht).

(PARESIS, therapy,
fever ther.with malaria & Caucasian recur.fever &penicillin (Rus))
(FEVER THERAPY, in var.dis.
paresis, malaria & Caucasian recur, fever ther.with penicillin (Rus))
(PENICILLIN, ther.use,
paresis, with malaria & Caucasian recur, fever ther. (Rus))

BERG, S.L., polkovnik; VOROB'YEV, V.I., kapitan pervogo ranga; GIL'BO, G.M., kapitan pervogo ranga; ANANCHENKO, A.A.; BALAKSHINA, N.M.; BANNIKOV, B.S., kapitan vtorogo ranga; BAKHTINA, G.F.; BERENSHTAM, N.V.; BUTYRINA, N.Ya.; VOROB'YEV, V.I., kapitan pervogo ranga; GASS, I.P.; GINNYSH, N.S.; GLADIN, D.F., polkovnik; GOLOVANOVA, L.G., kand. ist. nauk; GOLUBEVA, Z.D., kand. filol. nauk; GONCHAROVA, A.I.; ZANADVOROVA, R.N.; IVANOVA, N.G.; KARAMZIN, G.B.; KOVAL'CHUK, A.S.; KRONIDOVA, V.A.; LITOVA, Ye.I.; MOLCHANOVA, T.I.; OKUN', L.S.; POCHEBUT, A.N.; RAYTSES, V.I.; SAVINOVA, G.N.; SENICHKINA, T.I.; SKVYRNIKOV, R.G., kand. ist. nauk; FURAYEVA, I.I.; CHIZHOVA, N.N.; YASINSKAYA, L.F.; GLADIN, D.F., polkovnik; LAMETSKIY, Ye.F., podpolkovnik; LEBEDEV, S.M., kapitan pervogo ranga; ORDYNSKIY, N.I., kapitan pervogo ranga; NADVODSKIY, V.Ye., podpolkovnik; DEMIN, L.A., inzh.-kontr-admiral, glav. red.; FRUMKIN, N.S., polkovnik, zam. otv. red.; LEVCHENKO, G.I., admiral, red.; BAKHTINA, G.F., tekhn. red.

[Naval atlas] Morskoi atlas. n.p. Izd. Glavnogo Shtaba Voenno-Morskogo Flota. Vol.3. [Naval history] Voenno-istoricheskii. Pt.1. [Text for the maps] Opisaniia k kartam. 1959. xxii, 1942 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo oborony. (Naval history)

GIL'BO, I. S.

GIL'BO, I. S. "The arteries of the testes." First Leningrad Medical Inst imeni Academician I. P. Pavlov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Medical Sciences)

So: Knizhnaya Letopis', No. 18, 1956

USSR/Human and Animal Morphology - Normal and Pathological. S
Circulatory System.

Abs Jour : Ref Zhur Biol., No 11, 1958, 50280

Author : Gil'bo, I.S.
Inst : [redacted]
Title : Arteries of the Male Sexual Gland in Man

Orig Pub : Arkhiv anatomii, gistol. i embriologii, 1957, 34, No 1, 106-114

Abstract : The internal spermatic artery (A) is the main vessel supplying the testis, and the appendix. A of the ductus deferens as well as the the external spermatic A are complementary. The structure of the arterial channel of the seminal cord has many variants which may be brought down to the embryonal, reduced and intermediate forms, and which correspond to the structure of the venous and nervous plexuses. The constitution of the arterial channel of the testis expresses its structure and development:

Card 1/2

GIL'BO, I.S. (Leningrad, D-25, Nevskiy prosp., d.101, kv.39.)

Arteries of the epididymis in man. Arkh.anat.gist. i embr. 37 no.7:88-91 Jl '59. (MIRA 12:10)

1. Kafedra normal'noy anatomii (zav. - prof.M.G.Prives) I Leningradskogo meditsinskogo instituta im. I.P.Pavlova.
(EPIDIDYMIS, blood supply)

GIL'BO, M. P., SHUMYLOVICH, Ya. M., GRUZDEV, V. F.

Two cases of salvarsan encephalopathy; cure. Vest. ven. i derm., No 2, 1952.

50 c

L 41182-65 EWT(d)/EWP(e)/EWP(v)/T/EWP(k)/EWP(1) Pf-4
ACCESSION NR: AP5004677 S/0115/64/000/009/0058/0059

70
18
B

AUTHOR: none

TITLE: Fourth scientific and technical conference on "Cybernetics for the improvement of measurement and inspection methods"

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 58-59

TOPIC TAGS: cybernetics, electric measurement, electric quantity instrument, digital computer, electronic equipment, electric engineering conference

ABSTRACT: The conference was held 1-4 July at the All-Union Scientific Research Institute of Metrology by the Section of Electrical Measurements of the Council on the Problem of "Scientific Instrument Making" of the State Committee on Coordination of Scientific Research Work in the USSR together with the All-Union Scientific Research Institute of Electrical Measurement Instruments and the Leningrad Regional Administration of the Scientific and Technical Division of the Instrument Making Industry. More than 400 delegates from 29 cities of the country participated. Fifty-seven reports were heard and discussed. Reports were given by: P. V. NOVITSKIY (Leningrad)--"Definition of the Concept of Informational Error in Measurement and its Importance in Practical Use" and "On the Problem of the Average Informational Criterion of Accuracy Throughout the Entire Scale of an Instrument"; Ya. A.

Card 1/4

L 41182-65
ACCESSION NR: AP5004677

17

KUPERSMIDT (Moscow)--"On Determination of the Criteria of Accuracy for Measurement Devices"; S. M. MANDEL'SHTAM (Leningrad)--report on a new criterion of accuracy of measurement instruments; P. F. PARSHIN (Leningrad)--report on optimization when using Fourier transforms on electronic digital computers; S. P. DMITRIYEV, G. Ya. DOLGINTSEVA and A. A. IGNATOV (Leningrad)--proposal of a new method for solving problems of optimum filtering for non-stationary random signals and interference; I. B. CHELPANOV--"Calculation of the Dynamic Characteristics of an Optimum Complex Two-Channel System which Uses Signals from a Position Meter and from a Speed Meter"; R. A. POLUEKTOV (Leningrad)--"Optimum Periodic Correction in the Measurement of Continuous Signals"; S. P. ADAMOVICH (Moscow)--"Analysis and Construction of Devices for Correction of Non-linearity and Scaling for Unitary Codes; G. V. GORBLOVA (Taganrog)--"A Method for Statistical Optimization in Graduating the Scales of Electrical Measuring Instruments"; N. A. ZENEL'MAN (Moscow)--"Analog-Digital Voltage Converter with Automatic Error Correction"; B. N. MALINOVSKIY, V. S. KALENCHUK and I. A. YANOVICH (Kiev)--"Automatic Monitoring of the Parameters of the Electrical Signals of Complex Radio and Electronic Equipment"; V. P. PEROV (Moscow)--"Operational Cybernetics as an Independent Scientific Specialization"; Ye. N. GIL'BO (Leningrad)--"On the Problem of Effective Non-linear Scales"; A. I. MARKELOV (Moscow)--"Devices for Preliminary Processing of the Results of Measurements Presented in the Form of

Card 2/4

L 41182-65

ACCESSION NR: AP5006677

Graphic Recordings For Subsequent Introduction of the Information into Universal Digital Computers"; O. M. MOGILSVER and S. S. SOKOLOV (Leningrad)--"On a Method for Reducing Excess Information"; T. V. NIKOLAYEVA (Leningrad)--"A Device for Temporal Discretization of Continuous Signals"; A. A. LYOVIN and M. L. BULIS (Moscow)--"Optimization of the Transmission of Telemetric Information as a Means for Raising the Efficiency and Eliminating Interference"; D. E. GUKOVSKIY (Moscow)--"On a Statistic Approach to the Detection of Events in Automatic Inspection"; M. I. LANIN (Leningrad)--"Method for Calculating the Holding Time of Communications in a Centralized Inspection System or Constant Servicing Time"; O. N. BRONSHTEYN, A. L. RAYKIN and V. V. RYKOV (Moscow)--"On a Single-Line Mass Service System with Losses"; V. M. SHLYANDIN (Penza)--report on circuit designs for direct compensation electrical digital measuring instruments; A. N. KOMOV (Novocherkassk)--report on a new method for compensation of digital bridges; M. N. GLAZOV (Leningrad)--report on the problem of voltage-to-angular rotation conversion; V. S. GUTNIKOV (Leningrad)--"Methods for Construction of Frequency Capacitance Pickups with a Linear Scale"; R. Ya. SYROPYATOVA and R. R. KHARCHENKO (Moscow)--report on the determination of the amplitude-frequency and phase characteristics of PFM and PWM modulators; Ye. I. TEMYAKOV (Novocherkassk)--"The Phototransistor as a Switch for Electrical Measurement Purposes"; N. V. KALYGINA (Leningrad)--a report on ways for making universal equipment for measurement of current, voltage and power; P. P. ORNATSKIY and V. I. ZOZULYA (Kiev)--reports on the construction of static voltmeters, wattmeters and

Card 3/4

L 41182-65

ACCESSION NR: AP5004677

15

phase meters; A. V. TRIKHANOV, I. G. SMYSHLYAYEV, N. I. SABLIN, V. N. RAZIN and V. A. GORBUNOV (Tomsk)--report on a device for automatic processing of the measurements of vibration amplitude of pneumatic hammers; L. K. RUKINA and V. G. KNORRING (Leningrad) --report on the development of a digital compensator for measuring pressure, force, etc.; N. B. DADUKINA (Leningrad)--report on a method for constructing frequency pickups for gas analysis; Ye. M. KARPOV, V. A. BRAZHNIKOV and B. Ya. LIKHTTSINDER (Kuybyshev)--reports on analysis and recording of boring speeds; Yu. V. PSHENICHNIKOV (Kuybyshev)--"A High Speed Voltage-to-Digital Code Converter for ac Pickups"; G. P. VIKHROV and V. K. ISAYEV (Vilna)--"A Highly Accurate Digital Peak-to-Peak Voltmeter"; and S. M. PERSIN (Leningrad)--"A Low Level Analog-Digital Voltage Converter."

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE, EC

NO REF SOV: 000 OTHER: 000 JPRS

me

Card 4/4

GIL'BO, Ye.P.; PERVOZVANSKIY, A.A.

Steady state in the discrete system of step-by-step optimalizing control taking into consideration the inertness of the controlled object in the presence of random disturbances. Trudy LPI no.226: 147-156 '63. (MIRA 16:9)

(Automatic control)

L 1477-66 EWT(d)/EPF(n)-2/EWP(w)/EWP(k)/EWP(h)/EWP(1) IJP(c) WW/BC
ACCESSION NR: AP5021857 UR/0280/65/000/004/0148/0153

51
B

AUTHOR: Gil'bo, Ye. P. (Leningrad)
55

TITLE: Optimum characteristics of nonlinear converters in the presence of interferences

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1965, 148-153

TOPIC TAGS: nonlinear control system, automatic control design, control circuit, signal interference, signal to noise ratio, random noise signal, filter circuit

ABSTRACT: In automatic control systems there is often a need for nonlinear conversion of signals. To exclude various interferences such conversion systems contain an input filter which smoothens out the input signal. However, such engineering solutions are often far from the optimum one. Consequently, this author investigates the synthesis of nonlinear converters for random input signals obeying the normal distribution law. The discussion follows the general theory of optimum nonlinear filtration developed by V. S. Pugachev (Teoriya sluchaynykh funktsiy i yeye primeneniye k zadacham avtomaticheskogo upravleniya, Fizmatgiz, 1962). For various kinds of nonlinear conversion the paper gives estimates of the sensitivity of a given system to the type of nonlinearity as a function of the signal-to-noise

Card 1/2

L 1477-66

ACCESSION NR: AP5021857

ratio. Orig. art. has: 41 formulas and 5 figures.

ASSOCIATION: None

SUBMITTED: 29Feb64 ENCL: 00 SUB CODE: IE, DP

NO REF SOV: 003 OTHER: 001

Card 2/2

GIL'BO, Ye.P.

Isolating a signal from its nonlinear conversion on the background of random interferences. Trudy LPI 252:127-132 '65. (MIRA 18:9)

GIL'BO, Ye.P. (Leningrad); CHELPANOV, I.B. (Leningrad)

Characteristic of an optimal inertialess impulse noise filter. Avtom. i telem. 26 no.6:1074-1078 Je '65. (MIRA 18:7)

GIL'BO, Ye.P. (Leningrad)

Optimal characteristics of a nonlinear converter in the presence of interference. Izv. AN SSSR. Tekh. kib. no.4:148-153 Jl-Ag '65. (MIRA 18:11)

L 13922-66 EWT(d)/FSS-2

ACC NR: AT5028039 SOURCE CODE: UR/2563/65/000/252/0127/0132

AUTHOR: Gil'bo, Ye. P.

ORG: Leningrad Polytechnic Institute imeni M. I. Kalinin (Leningradskiy politekhnicheskiy institut)

45
B+1

TITLE: Separation of a signal from its nonlinear transformation in a random noise background

16

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy. no. 252. 1965. Dinamika i prochnost'mashin; mekhanika i protsessy upravleniya (Dynamics and durability of machines; mechanics and processes of control) 127-132

TOPIC TAGS: signal analysis, signal detection, signal identification, signal noise separation, random noise signal

ABSTRACT: The problem of determining the signal $x(t)$ when the input to the measuring instrument is the sum of some nonlinear function of the signal $y = \phi(x)$ and of some random noise signals $n(t)$ (i.e., $z(t) = y(t) + n(t)$), is discussed. The problem may be reduced to finding a nonlinear transformation $x^* = x(z)$ which will give the optimum approximation $x^*(t)$ for the signal $x(t)$. Minimising the dispersion

$$M\{[x(z) - \phi(y)]^2\} = \min,$$

an expression for the transformation is found as

Card 1/2

2

L 13922-66
ACC NR: AT5028839

$$\chi(z) = \frac{\int_{-\infty}^{\infty} \psi(y) f_y(y) f_n(z-y)\,dy}{\int_{-\infty}^{\infty} f_y(y) f_n(z-y)\,dy},$$

[where $f_n(x)$ = probability density of noise $n(t)$; $x = \psi(y)$ = solution of $y = \phi(x)$ for x; $f_y(y)$ = probability density of process $y(t)$]. The dispersion of the error of the optimum transformator $\overline{e^2}$ is found as

$$\overline{e^2} = \overline{\psi^2(y)} - \overline{\chi^2(z)},$$

given by A. A. Pervozvanskiy (Sluchaynyye protsessy v nelineynykh avtomaticheskikh sistemakh. M., Fizmatgiz, 1962, s. 351). If, instead of the optimum characteristic $x(z)$, the nonlinear transformation $x_1(z) = \psi(z)$ is used, then the error dispersion $\overline{e_1^2}$ becomes

$$\overline{e_1^2} = \overline{\psi^2(y)} - 2\overline{\chi_1(z)\psi(y)} + \overline{\chi_1^2(z)} - [\overline{\psi(y)} - \overline{\chi_1(z)}]^2.$$

The calculation procedure is demonstrated for the nonlinear function $y = k^2x^2$ with $x(t)$ and $n(t)$ assumed as uniformly distributed random processes. Orig. art. has: 2 figures and 22 formulas.

SUB CODE: 17, 09/ SUBM DATE: none/ SOV REF: 002

Card 2/2

L 21979-66 EWA(h)/EWP(k)/EWT(d)/EWT(1)/EWP(h)/EWP(1)/EWP(v) TG

ACC NR: AP6007863 SOURCE CODE: UR/0103/66/000/002/0070/0075

AUTHOR: Gil'bo, Ye. P. (Leningrad); Chelpanov, I. B. (Leningrad)

ORG: none

TITLE: Optimal nonlinear inertialess transformation of the signals of several instruments taking the nonreliability of their operation into account

SOURCE: Avtomatika i telemekhanika, no. 2, 1965, 70-75

TOPIC TAGS: reliability theory, reliability engineering, system reliability

ABSTRACT: The author determines the nonlinear characteristic of a device which is optimal with respect to the minimum error dispersion criterion for the problem of the conversion of data from several imperfect instruments. It is assumed that the random error distributions are known for a normal operational mode of the instrument and for failure of the instrument. It is shown for the case of three instruments that the characteristic presented assures the averaging of reliable data and rejection of unreliable data. The reliability threshold is determined by the a priori probability of instrument failure. Orig. art. has: 3 figures and 25 formulas.

UDC: 62-52:519.281

Card 1/2

L 21979-66

ACC NR: AP6007863

SUB CODE: 09 / SUBM DATE: 26Jun64 / ORIG REF: 003

Card 2/2 mt

GIL'BRIKHT-IL'KOVSKAYA, A. [Gilbricht-Ilkowska, A.]

Some characteristics of the succession of microfauna in a hay infusion representing an experimental aquatic ecosystem. Vop. ekol. 5:35-37 '62. (MIRA 16:6)

1. Institut ekologii Pol'skoy AN, Varshava.
(Micro-organisms)

GILCA, F., candidate in stiinte economice; IONITA, M., candidat in stiinte economice

"Increased rentability of state agricultural farms" by V.Baghinschi. Reviewed by F.Gilca and M.Ionita. Probleme econ 15 no.2:142-146 F'62.

GILCA, F., candidat in stiinte economice; IONITA. M., candidat in stiinte economice

Many-sided and intensive development of production on collective farms. Probleme econ 15 no.8:43-56 Ag '62.

GÎLCA, Fl., candidat in stiinte economice; IONITA, M., candidat in stiinte economice; REDEȘ, D., candidat in stiinte economice

Aspects of economic efficiency of sunflower cultures on collective farms in the Călărași District. Probleme econ 16 no.1:117-123 Ja '63.

SEREBRENNYY, G.N.; GIL'CHENKO, A.V., retsenzent; DAVYDOVA, M.A., otv. za vypusk; POPOVSKIY, Ya.D., tekhn. red.

[Modern organization of the erection of buildings from panels and blocks] Sovremennaia organizatsiia montazha zdanii iz panelei i blokov; uchebnoe posobie dlia zaochnogo povysheniia kvalifikatsii inzhenerno-tekhnicheskikh rabotnikov k programme kursa "Progressivnaia tekhnologiia i organizatsiia stroitel'nogo proizvodstva." Moskva, Vses.zaochnyi tekhniku, 1963. 157 p. (MIRA 16:12)
(Buildings, Prefabricated)

GIL'CHENOK, B.

Unit for the preparation of water-oil emulsions. Stroitel' 8 no.11:27 N '62. (MIRA 16:1)
(Ultrasonic waves--Industrial applications)
(Emulsions)

AID P - 4021

Subject : USSR/Power

Card 1/1 Pub. 26 - 10/31

Authors : Gil'cher, O. A. and A. D. Shleyfman, Engs.

Title : Means of eliminating vibrations in relays of the EN and ET-520 type.

Periodical : Elek. sta., 11, 36-38, N 1955

Abstract : These types of relays are discussed and explained in detail. Research on new types is reported. Three diagrams.

Institution : None

Submitted : No date

BASS, E.A., inzhener; GIL'CHER, O.A., inzhener; SAVOST'YANOV, A.I., inzhener.

Using PZ-156A distance protection. Elek.sta. 27 no.7:41-46 Jl '56. (MLRA 9:10)

(Electric apparatus and appliances)

GIL'CHER, O.A., insh.

Blocking the remote protection from simultaneous voltage vanishing in three phases. Elek. sta. 30 no.3:74-76 Mr '59. (MIRA 12:5)

(Electric networks) (Electric switchgear)

GIL'CHER, Teodor [Hilcer, T.] (Praga)

Present state and future of Czechoslovak railroads. Zhel.dor. transp. 44 no.5:83-84 My '62. (MIRA 15:5)
(Czechoslovakia—Railroads)

S/081/62/000/005/010/112
B158/B110

AUTHOR: [illegible], [illegible], [illegible], Kul, F.

TITLE: [illegible] of the base line in vapor-liquid chromatography

PERIODICAL: [illegible] Khimiya, no. 5, 1962, 41 - 50, [illegible] (Sb. "Gaz. khromatografiya" 1961, [illegible], Izd-vo [illegible] 41 - 271)

TEXT: A study is made of the effect of changes in pressure and flow rate of the carrier gas, of the impurity content, and of volatilization of the stationary phase on the stability of the base line for chromatography with a thermometer. All these factors may cause instability of the base line. For removal of the effect of pressure change, a system of separate currents through the measuring and comparison chambers of the detector is used. An improved design is suggested for a membrane controller to maintain a constant flow rate and apparatus for removal of impurities from He (absorption column with molecular sieve). To prevent deflection of the base line caused by the presence of volatile impurities in the phase, this should be treated initially in vacuo. By using the

Card 1/2

Formulation of the Base ... S/081/62/000/005/010/112
B158/B110

suggested methods, drift of the base line can be reduced to 5% and satisfactory reproducibility obtained in analysis of an artificial mixture of hydrocarbons and gasoline fractions using temperature programming, whereby the demands for base line stability increase. Abstracter's note: Complete translation.

Card 2/2

GILDAU, E.; VALERIU, A.

Measuring the distribution of the magnetic field by means of nuclear magnetic resonance. Studii cerc fiz 11 no.2:462-467 '60. (EEAI 10:1)
(Magnetic fields) (Magnetic resonance)

GIL'DE, E.K.

Estimating footwear costs. Leg. prom. 18 no.4:6-8 Ap '58. (MIRA 11:4)

1. Zamestitel' glavnogo bukhgaltera Upravleniya kozhevenno-obuvnoy i mekhovoy promyshlennosti Leningradskogo Sovnarkhoza.
(Shoe manufacture--Costs)

GIL'DE, M.K.

Bonus systems for decreasing second-grade production in shoe factories. Leg.prom. 18 no.11:13-15 N '58. (MIRA 11:12)
(Shoe manufacture) (Bonus system)

GIL'DE, R.K.

Utilizing the reverse side of materials in shoe factories. Kozh.-obuv.prom. no.4:1-4 Ap '59. (MIRA 12:7)
(Shoe manufacture)

GIL'DE, E.K.

Mechanization of estimated and standard accounting. Kozh.-obuv.prom.3 no.3:9-12 Mr '61. (MIRA 14:6)
(Machine accounting)

0916 0537

L 33634-66 IJP(c) WW

ACC NR: AP6025022 SOURCE CODE: HU/0016/65/000/010/0304/0311

AUTHOR: Gilde, Ferenc

ORG: Institute for Theoretical Physics, Jozsef Attila Scientific University (Jozsef Attila Tudomanyegyetem Elmeleti Fizikai Intezet)

TITLE: Temperature

SOURCE: Fizikai szemle, no. 10, 1965, 304-311

TOPIC TAGS: temperature, thermodynamics

ABSTRACT: Scientific, experimental, and philosopical aspects of temperature were discussed and some common misunderstandings regarding temperature were traced to their origin and dispelled. The following subjects were dealt with: experimental aspects of the temperature concept, theoretical development of the theories dealing with heat and temperature, feasibility of the realization of a system endowed with empirical temperature, concept of absolute temperature, characteristics of absolute temperature, and philosophical ramifications of the temperature concept. Orig. art. has: 3 figures and 26 formulas. [JPRS: 33,909]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 003

Card 1/1

B

HUNGARY/Physical Chemistry. Molecule. Chemical Bond.

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 72955.

Author : F.J. Gilde, M.I. Ban.
Inst :
Title : Electronic Structure of Cr(III) Hexacyanide Complex Ion by the LCAO Method.

Orig Pub: Acta phys. et hhem. Szeged, 1957, 3, No 1-4, 42-48.

Abstract: The complex $[Cr(CN)_6]^{3-}$ was studied by the MOLCAO method. Nine 3d-, 4s- and 4p-orbits of Cr with 3 electrons (corresponding to the Cr^{3+} ion) and three 2p-orbits of each C atom with 4 electrons at every atom were considered. The 27 available AO-s were divided according to types corresponding to irreducible group concepts of O_h: $G = 2A_{1g}$ (4s and the linear combina-

Card : 1/4